

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-10, 15, 16, 22-29, 31-34 and 36-44 are pending in the application, with claim 1 being the sole independent claim. Claims 18-21 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Claims 1, 10, 15, 16, 22-25, 28, 29 and 36 are sought to be amended. Support for the claim amendments can be found throughout the specification, for example, at page 20, line 1, through page 21, line 30, at page 43, lines 15-19, and in the claims as originally filed. No new matter is added by way of these amendments. It is respectfully requested that the amendments be entered and considered.

Based on the above amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

I. Claim Rejections Under 35 U.S.C. § 102

A. Atlas

Claims 1, 5, 6, 8, 10, 15, 16, 18, 19, 28, 29, 31-33, 36, 40 and 41 were rejected under 35 U.S.C. § 102(b) as being anticipated by Atlas, *Handbook of Microbiological Media*, 2nd ed. (1997) ("Atlas"). See Office Action, page 2. Applicants respectfully traverse this rejection.

An anticipation rejection under 35 USC § 102 requires a showing that each limitation of a claim is found in a single reference, practice, or device. *See In re Donohue*, 766 F.2d 531, 226 USPQ 619, 621 (Fed. Cir. 1985).

The currently presented claims are directed to methods for producing an automatically pH-adjusting eukaryotic dry powdered culture medium. The methods comprise: (a) determining the ratio of pH-opposing forms of buffer salts required to be added to a eukaryotic dry powdered culture medium to automatically provide a desired final pH upon reconstitution of the dry powdered culture medium with a solvent; and (b) adding amounts of pH-opposing forms of buffer salts to the dry powdered culture medium in the ratio determined in step (a) to produce an automatically pH-adjusting eukaryotic dry powdered culture medium having said desired final pH upon reconstitution. The claims are also directed to media produced by such methods, as well as to methods, kits and compositions that include media produced by such methods.

Atlas does not teach adding pH-opposing forms of buffer salts to a *dry powdered* culture medium. According to Atlas, the medium referred to as "A Medium, 5X" is prepared by adding the components listed in the chart spanning pages 18-19 (K_2HPO_4 , KH_2PO_4 , $(NH_4)_2SO_4$, sodium citrate·2H₂O, carbon source solution and $MgSO_4 \cdot 7H_2O$ solution), except for carbon source solution and $MgSO_4 \cdot 7H_2O$ solution, *to distilled/deionized water*. *See* Atlas, page 19, middle left column. Thus, according to Atlas, the components are added to water, not to a dry powdered culture medium, as specified in the present claims.

In addition, Atlas does not teach a method for producing a *eukaryotic* culture medium. The medium of Atlas is specified for "the cultivation of *Escherichia coli*." See Atlas, page 19, middle left column.

Since Atlas does not teach all of the elements of any of the currently presented claims, Atlas does not and cannot anticipate claims 1, 5, 6, 8, 10, 15, 16, 18, 19, 28, 29, 31-33, 36, 40 and 41. Applicants respectfully request that the anticipation rejection based on Atlas be reconsidered and withdrawn.

B. Fluka

Claims 1, 2, 5, 6, 8, 10, 15, 16, 18, 19, 28, 29, 31-33, 36, 40 and 41 were rejected under 35 U.S.C. § 102(b) as being anticipated by Fluka Catalogue No. 86494 ("Fluka"). See Office Action, page 3. Applicants respectfully traverse this rejection.

Applicants first note that a rejection under 35 U.S.C. § 102(b) is only appropriate if "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States." See *id.* There is no indication of the date of publication of Fluka. Therefore, it cannot be concluded that Fluka is prior art with respect to the claims of the present application.

In addition, Fluka does not teach a method for producing a *eukaryotic* culture medium. According to Fluka, the media referred to as "Terrific Broth" is "used with glycerol in cultivation of recombinant *E. coli* strains." See Fluka, top paragraph. Thus, Fluka does not teach all of the elements of any of the currently presented claims.

Since there is no indication of the publication date of Fluka, and since Fluka, in any event, does not teach all of the elements of any of the currently presented claims, Fluka cannot and does not anticipate claims 1, 2, 5, 6, 8, 10, 15, 16, 18, 19, 28, 29, 31-33, 36, 40 and 41. Applicants respectfully request that the anticipation rejection based on Fluka be reconsidered and withdrawn.

II. Claim Rejections Under 35 U.S.C. § 103

A. WO 98/36051 In View of Atlas

Claims 1-10, 15, 16, 18-29, 31-34 and 36-44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 98/36051 in view of Atlas. *See* Office Action, page 4. Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. *See In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). The teaching or suggestion to make the claimed combination must be found in the prior art, not in Applicants' disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicants submit that there would not have been any motivation for a person of ordinary skill in the art to combine or modify the cited references.

The Examiner acknowledged that WO 98/36051 does not teach the use of pH-opposing forms of buffer salts. According to the Examiner:

[WO 98/36051] does not specifically teach using pH-opposing forms of buffer salts to maintain the pH of the medium at a desired level. Rather, [WO 98/36051] teaches using a pH-adjusting agent such as HCl or NaOH in the dry powder to obtain a desired pH upon reconstitution of the dry powder.

Office Action, page 6. The Examiner, however, asserted that:

It would have been obvious to combine the teachings of Atlas with those of [WO 98/36051] because each teaching concerns the preparation of medium that has a desired pH upon reconstitution. Furthermore, Atlas teaches a method of obtaining a desired pH without using extraneous pH-adjusting agents such as HCl or NaOH; this is in accordance with the suggestion in [WO 98/36051] that extraneous pH-adjusting agents be omitted from the media preparations.

Office Action, page 6.

Applicants respectfully disagree with the foregoing assertions and submit that they are legally insufficient to establish a *prima facie* case of obviousness. First, motivation to combine references cannot be established simply because each reference allegedly "concerns the preparation of medium that has a desired pH upon reconstitution." Any motivation to combine references must be established by "clear and particular" evidence. *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Merely pointing out that two references "concern" the same overall general subject matter is not clear and particular evidence of a motivation to combine.

Second, WO 98/36051 states that the invention set forth therein "provides a powdered nutritive culture medium useful in cultivation or growth of cells *in vitro* that, upon reconstitution with a solvent (*e.g.*, water or serum), has a pH that is optimal for the support of cell cultivation or growth without a need for adjustment of the pH of the liquid medium."

Id., page 20, lines 14-18. According to WO 98/36051, this aspect of the invention is accomplished by adding a pH-adjusting agent such as an acid (*e.g.*, HCl) or a base (*e.g.*, NaOH) to a powdered nutritive medium. *See id.*, page 20, lines 7-9. Thus, According to WO 98/36051, the preparation of a powdered medium that does not require pH adjustment in liquid form is accomplished by adding HCl or NaOH to the powder. There is no suggestion that any other mechanism could or should be used to accomplish this result, and certainly there is no suggestion that this result could be accomplished by the addition of *pH-opposing forms of buffer salts*, as recited in the present claims.

Furthermore, the Examiner's statement that WO 98/36051 suggests that "extraneous pH-adjusting agents be omitted from the media preparation" is incorrect; WO 98/36051 does not suggest the omission of pH-adjusting agents, but rather indicates that acids or bases such as HCl or NaOH, respectively, can be added to dry powdered culture media. *See* WO 98/36051, page 20, lines 7-9. Moreover, WO 98/36051 does not suggest substituting the acids or bases with any other compounds. Thus, there would have been no motivation to modify WO 98/36051 or to combine it with Atlas.

Since no clear and particular evidence has been presented to suggest that one of ordinary skill in the art would have been motivated to combine or modify the cited references, a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn.

B. WO 98/36051 In View of Fluka

Claims 1-10, 15, 16, 18-29, 31-34 and 36-44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 98/36051 in view of Fluka. *See* Office Action, page 7. Applicants respectfully traverse this rejection.

As a preliminary matter, Applicants note that there is no indication of the date of publication of Fluka. Thus, it cannot be concluded that Fluka is prior art with respect to the claims of the present application. Applicants submit that, without an indication of its publication date, Fluka is not a proper reference under 35 U.S.C. § 103.

In addition, regardless of whether Fluka is prior art, a *prima facie* case of obviousness has not been established. To support the rejection, the Examiner again acknowledged that WO 98/36051 does not teach the use of pH-opposing forms of buffer salts. *See* Office Action, page 7. The Examiner, however, stated that:

It would have been obvious to combine the teachings of Fluka with those of [WO 98/36051] because each teaching concerns the preparation of medium that has a desired pH upon reconstitution. Furthermore, Fluka teaches a method of obtaining a desired pH without using extraneous pH-adjusting agents such as HCl or NaOH; this is in accordance with the suggestion in [WO 98/36051] that extraneous pH-adjusting agents be omitted from the media preparations.

Office Action, page 8.

As noted above, motivation to combine references cannot be established simply because each reference allegedly "concerns the preparation of medium that has a desired pH upon reconstitution." The Examiner has not presented any clear and particular evidence of a motivation to combine or modify the cited references. In addition, as explained above, WO

98/36051 does not suggest that anything but an acid or a base could or should be added to a dry powdered culture medium to produce a medium that, upon reconstitution with a solvent, has a particular pH. The Examiner's statement that WO 98/36051 suggests omitting "extraneous pH-adjusting agents" from the media preparations is incorrect and does not suggest modifying or combining the references. Thus, a person of ordinary skill in the art would not have been motivated to modify WO 98/36051 or combine it with Fluka. Applicants respectfully request that this rejection be reconsidered and withdrawn.

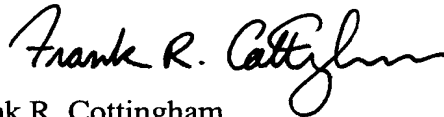
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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